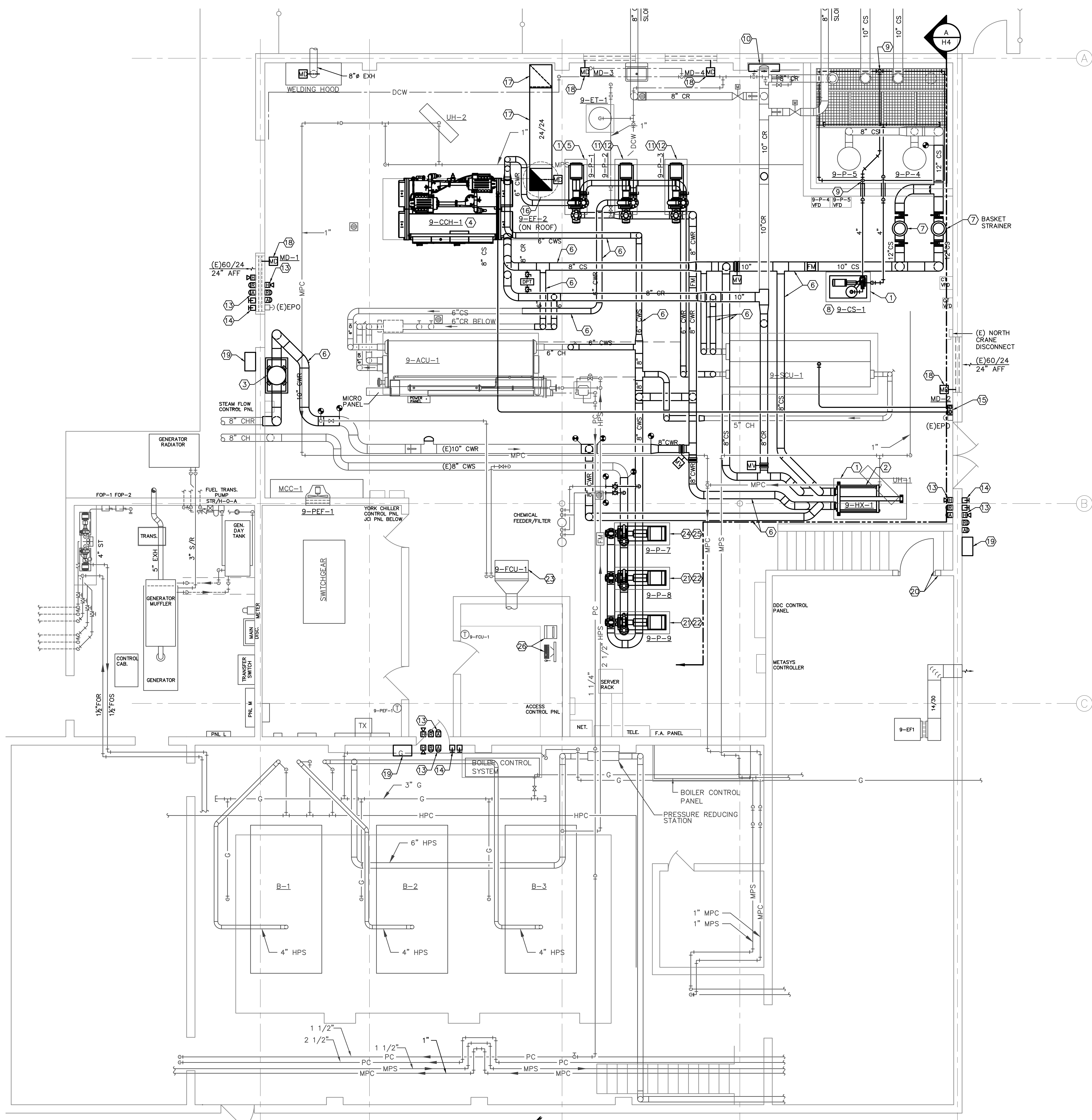


three inches = one foot  
one and one-half inch = one foot  
one inch = one foot  
three-quarters inch = one foot  
one-half inch = one foot  
three-eighths inch = one foot  
one-quarter inch = one foot  
one-eighth inch = one foot



CHILLER PLANT HYDRONIC NEW WORK PLAN  
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. NOT ALL DUCTWORK, PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT WAS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL OTHER PLANS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF ANY WORK, AND SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND THE ACTUAL FIELD CONDITIONS.
3. COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS SHALL BE SEALED WITH A FIRE RATED CONSTRUCTION SHALL BE SEALED WITH A FIRE RATED CAULK EQUAL TO OR EXCEEDING THE CONSTRUCTION FIRE RATING.
4. MOUNT SPACE TEMPERATURE SENSORS, THERMOSTATS, AND REMOTE CONTROL DEVICES WITH CENTERLINE AT 60" AFF UNLESS OTHER WISE INDICATED.
5. ALL FRESH AIR INTAKES AND EXHAUST OPENINGS SHALL HAVE 1/4" MESH BIRD SCREENS.
6. PROVIDE BALANCING REPORT IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE, 2009 EDITION. SUBMIT TO ENGINEER FOR FINAL APPROVAL.
7. PROVIDE AND INSTALL MANUAL AIR VENTS AT ALL HIGH POINTS AND DRAIN VALVES AT ALL LOW POINTS IN HYDRONIC PIPING.
8. ALL HEATING WATER SUPPLY AND RETURN BRANCH PIPING TO TERMINAL UNITS SHALL BE 3/4" UNLESS NOTED OTHERWISE. ALL BRANCH TAKE-OFFS SHALL BE OFF THE BOTTOM OF THE MAIN WITH SWING JOINTS.
9. PROVIDE PRESSURE/TEMPERATURE TAPS BESIDE ALL TEMPERATURE SENSORS.
10. MANY OF THE WORK AREAS OF THIS PROJECT ARE CONGESTED. THE CONTRACTOR SHALL CAREFULLY PRE-PLAN WORK, ORGANIZE NEW LAYOUTS, AND CLOSELY COORDINATE ALL TRADES TO ASSURE ADEQUATE SPACE FOR THE NEW EQUIPMENT. ALL COSTS TO RELOCATE IMPROPERLY INSTALLED EQUIPMENT OR MATERIALS WILL BE BORN BY THE CONTRACTOR.
11. COORDINATE NEW WORK WITH CONTRACTING OFFICER'S REPRESENTATIVE AND CONSTRUCTION PHASING SCHEDULE.
12. REFER TO THE SHEET H6 FOR MECHANICAL DETAILS, H7 & H8 FOR EQUIPMENT SCHEDULES AND H9, H10 & H11 FOR CONTROL SCHEMATICS.

KEYNOTES

1. PROVIDE AND INSTALL NEW CONCRETE HOUSEKEEPING PAD, SEE 'CONCRETE HOUSEKEEPING PAD DETAIL' ON SHEET H6.
2. DISASSEMBLE AND CLEAN PLATES ON EXISTING PLATE AND FRAME HEAT EXCHANGER (9-HX-1). REINSTALL EXISTING PLATE AND FRAME HEAT EXCHANGER (9-HX-1) ON NEW CONCRETE HOUSEKEEPING PAD, SEE 'PLATE AND FRAME HEAT EXCHANGER DETAIL' ON SHEET H6.
3. REINSTALL EXISTING AIR SEPARATOR (9-AS-1) ON NEW STRUCTURAL STEEL STAND, SEE 'AIR SEPARATOR PIPING DETAIL' ON SHEET H6.
4. PROVIDE AND INSTALL NEW CENTRIFUGAL CHILLER (9-CCH-1) ON EXISTING CONCRETE PAD, SEE 'CENTRIFUGAL CHILLER PIPING DETAIL' ON SHEET H6.
5. PROVIDE AND INSTALL NEW PRIMARY CHILLED WATER PUMP (9-P-1) ON NEW CONCRETE HOUSEKEEPING PAD, SEE 'END SUCTION PUMP DETAIL' ON SHEET H6.
6. PROVIDE AND INSTALL NEW PIPING AS INDICATED.
7. PROVIDE AND INSTALL NEW 12" BASKET STRAINER IN PARALLEL WITH THE EXISTING BASKET STRAINER ON THE CONDENSER WATER SUPPLY.
8. INSTALL OWNER FURNISHED CENTRIFUGAL SEPARATOR (9-CS-1) ON THE CONDENSER WATER SUPPLY.
9. 4" CS DOWN TO NEW SUMP BASIN SWEEPER SYSTEM, SEE 'NEW SUMP BASIN SWEEPER DETAIL' ON SHEET H5.
10. PROVIDE AND INSTALL NEW CONDENSER WATER TREATMENT SYSTEM TO INCLUDE CONDUCTIVITY/ORP CONTROLLER, CHEMICAL FEED PUMPS, COUPON RACK, ETC., SEE SPECIFICATIONS.
11. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL NEW CONCRETE HOUSEKEEPING PAD, SEE 'CONCRETE HOUSEKEEPING PAD DETAIL' ON SHEET H6.
12. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL NEW PRIMARY CHILLED WATER PUMP (9-P-2 & 9-P-3) ON NEW CONCRETE HOUSEKEEPING PAD, SEE 'END SUCTION PUMP DETAIL' ON SHEET H6.
13. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL NEW AUDIBLE AND VISUAL ALARM INDICATORS ON THE INSIDE AND OUTSIDE OF EACH CHILLER ROOM EXIT DOOR.
14. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL A BREAK GLASS SWITCH FOR THE EMERGENCY PURGE VENTILATION SYSTEM. PROVIDE AND INSTALL A BREAK GLASS SWITCH FOR 'OFF' ONLY CONTROL OF THE CHILLERS.
15. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL NEW REFRIGERANT MONITOR. PROVIDE 1/4" SENSOR PIPING TO SENSOR AT EACH CHILLER.
16. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL NEW EXHAUST FAN (EF-2) ON ROOF.
17. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL EXHAUST DUCTWORK FROM EXHAUST FAN (EF-2) TO WALL AND DOWN TO WITHIN 12" OF THE FLOOR. INSTALL EXHAUST GRILLE AS HIGH AS POSSIBLE ON VERTICAL DUCT AND AT ITS TERMINATION POINT 12" ABOVE THE FLOOR. GRILLES SHALL BE SHOP FABRICATED WITH 19GAGE WIRE MESH SCREEN AND 1" BORDER.
18. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL MODULATING ELECTRIC DAMPER ACTUATOR ON EACH LOUVER DAMPER. PROVIDE ALL NECESSARY HARDWARE AND LINKAGE TO INSTALL DAMPER ACTUATOR.
19. UNDER DEDUCTIVE ALTERNATE BID NO. 1: PROVIDE AND INSTALL A SELF CONTAINED BREATHING APPARATUS (SCBA) IN A STORAGE CABINET, ETC. OUTSIDE EACH ENTRANCE TO THE CHILLER ROOM. WHERE LOCATED OUTSIDE, THE STORAGE CABINET SHALL BE WEATHERPROOF AND LOCKABLE.
20. UNDER DEDUCTIVE ALTERNATE BID NO. 1: FRAME IN EXISTING 52"x112" OPENING WITH METAL STUDS AND 5/8" TYPE X GYPBOARD BOTH SIDES. INSTALL METAL DOOR AND FRAME HAVING A 1 HOUR FIRE RATING. INCLUDE VAMC STANDARD DOOR HARDWARE.
21. UNDER DEDUCTIVE ALTERNATE BID NO. 2: PROVIDE AND INSTALL NEW CONCRETE HOUSEKEEPING PAD, SEE 'CONCRETE HOUSEKEEPING PAD DETAIL' ON SHEET H6.
22. UNDER DEDUCTIVE ALTERNATE BID NO. 2: PROVIDE AND INSTALL NEW SECONDARY CHILLED WATER PUMPS (9-P-8 & 9-P-9) ON NEW CONCRETE HOUSEKEEPING PAD, SEE 'END SUCTION PUMP DETAIL' ON SHEET H6.
23. UNDER DEDUCTIVE ALTERNATE BID NO. 2: PROVIDE AND INSTALL STANDALONE DDC CONTROLLER, CONTROL VALVE AND SPACE TEMPERATURE SENSOR ON FAN-COIL-UNIT (FCU-1).
24. UNDER DEDUCTIVE ALTERNATE BID NO. 3: PROVIDE AND INSTALL NEW CONCRETE HOUSEKEEPING PAD, SEE 'CONCRETE HOUSEKEEPING PAD DETAIL' ON SHEET H6.
25. UNDER DEDUCTIVE ALTERNATE BID NO. 3: PROVIDE AND INSTALL NEW SECONDARY CHILLED WATER PUMPS (9-P-7) ON NEW CONCRETE HOUSEKEEPING PAD, SEE 'END SUCTION PUMP DETAIL' ON SHEET H6.
26. UNDER DEDUCTIVE ALTERNATE BID NO. 4: PROVIDE AND INSTALL NEW ENGINEERING CONTROL CENTER (ECC) HARDWARE AND SOFTWARE, SEE SPECIFICATIONS FOR REQUIREMENTS.

<div>Revisions</div> <div>Date</div>		<div><b>SCHENDT</b> ENGINEERING CORPORATION CONSULTING ENGINEERS * PH. (719) 637-8860 * * FAX (719) 632-0300 * 2912 BEACON ST. COLORADO SPRINGS, CO 80907</div>	<div><b>GONZALES</b> CONSULTING &amp; ENGINEERING</div>	<div>P.O. Box 17868 GOLDEN, COLORADO 80402  PH: 303.386.3324 FX: 720.920.9004  RICARDO@GCECOLORADO.COM</div>	<div>Drawing Title CHILLER PLANT NEW WORK PLAN</div> <div>Approved: Medical Center Director Approved: Assistant Administrator, Engineering Department</div>	<div>Project Title REPLACEMENT OF ABSORPTION CHILLER</div> <div>Location 2121 NORTH AVENUE GRAND JUNCTION, CO 81505</div> <div>Date 03/13/2013</div> <div>Checked TBS</div> <div>Drawn DJS</div>	<div>Project Number VA259-12-C-0219</div> <div>Building Number BLDG 9</div> <div>Drawing Number <b>H3</b> Dwg. 5 of 16</div>	<div>OFFICE OF FACILITIES MANAGEMENT</div> <div>Department of Veterans Affairs</div>
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